

EROSION/NUTRIENT MANAGEMENT MEASURES

Erosion/Nutrient Management Measures means a planned system for reducing soil erosion and nutrient runoff from cropland to improve water quality. System components may include:

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Policies

1. For vegetative practices and other practices which may include vegetation as an element.

(a) Mulch includes the cost of materials and labor installing any approved mulch material from the N.C. Technical Guide, Section IV, standard 342-II, at a rate of 2

tons per acre. Use of clean small grain straw is highly recommended. The average cost used is based on 125 bales of small grain straw per acre at 32 lbs. per bale. Hydro-mulch used by hydro-seeders is not to be used as a substitute for small grain mulch at any rate.

- (b) Where mulch netting is required, use as needed 10, 12, or 15 feet wide netting. The Area Office will decide if respective NRCS Area is approved to use 10 feet wide netting and overlap in channels exceeding 10 feet (any overlap must exceed 18 inches). Netting must be wide enough to cover at least 6 inches from the bottom of the waterway up the side slopes. Price includes cost of netting, staples, and labor for installation.
 - (c) Where mulch is not required, the use of netting is at the discretion of the person planning the practice.
 - (d) Fescue is used as base vegetation for establishing average cost. Other vegetative types may be used if they meet site specification but must use base average cost developed for fescue. The only exception to this is for installations for critical area planting or stream bank plantings where native vegetation is permissible.
 - (e) Cooperator may use other than 10-10-10 fertilizer and the NC Agriculture Cost Share Program will pay 75% of \$.22 per lb. of plant food based on soil test.
 - (f) Cost share payments for stripcropping or cropland conversion are restricted to bulk rates.
- 2. Animal guards are required for all practices which have a subsurface drain outlet grassed waterway, diversion, rock-lined waterway, etc.). These guards are needed to satisfy the subsurface drain standard.
 - 3. Structural geotextiles shall meet the requirements of "Construction Specification 17 - Geotextiles". Drainage geotextiles shall meet the requirements of N.C. Technical Guide, Section IV Practice Standard 606, as shown in paragraph 606-8-5.
 - 4. Technical staff shall have the responsibility for determining appropriate set backs for cost shared fencing in accordance with Agriculture Cost Share Program policy and NRCS standards, if applicable. (See Section V for guidance relative to fencing.)
 - 5. Except for Supervisors' contracts, Districts may approve contracts for vegetative practices in the amount of \$3,500 or less, limited to 1 per cooperator per year. Installation may begin on these contracts prior to the District's receipt of Division approval. However, Districts assume any responsibility for accuracies in the CPOs.
 - 6. Land smoothing for stripcropping, terraces, diversions, and grassed waterways is intended to be used only where existing terraces, diversions or other minor landscape features must be removed prior to initiating a terrace, stripcropping, diversion or grassed waterway system.
 - 7. For other components required as an integral part of a BMP, use cost values for the appropriate component provided elsewhere in the average cost.
 - 8. The grading minimum is to be used in a cost share contract when the normal grading rate would not sufficiently cover the cost of equipment use at the site (i.e., covers the cost of transporting equipment to a site; only one minimum can be used per contiguous area).

9. If a cooperator fails to achieve all requirements for a cost share incentive practice (e.g., minimum residue for 3-year conservation tillage or long-term no-till) in spite of making a good faith effort to achieve the requirements, the district may, at its discretion, offer the cooperator a choice to either extend the duration of the maintenance obligation for the incentive practice by the number of years for which the minimum requirements were not achieved or to immediately repay the full amount of the cost share incentive received.

Three-Year Conservation Tillage for Grain and Cotton

Definition/Purpose

A Three-Year Conservation Tillage Practice means any tillage and planting system in which at least sixty percent (60%) of the at-plant soil surface is covered by plant residue to improve water quality. Benefits may include reduction of soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. (DIP)

Policies

1. Each year of the contract requires a crop be planted with at least 60% residue.
2. To be eligible for this conservation tillage incentive, the cooperator must certify that they are not already using the conservation tillage practice for which they are applying on any land that they farm. Cooperators who have received state or federal cost share for annual conservation tillage prior to September 20, 2000 remain eligible for the Three-Year Conservation Tillage incentive.
3. The cooperator must commit to do conservation tillage (60% crop residue cover at planting on the same field or group of fields for three consecutive years). No payment for this incentive shall be made until the required 60% at plant residue for the first crop is certified by a field office representative.
4. A cover crop should be sown at harvest or should be drilled within two weeks after harvest.
5. Regardless of the crop, residue at time of planting must be at least 60%. However, a cooperator who has received the 3-year conservation tillage incentive for peanuts, sweet corn, tobacco, and vegetables may not receive the 3-year conservation tillage incentive for grain and cotton for the same land.
6. BMP soil, nitrogen, and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
7. Minimum life of the BMP is three (3) years.
8. Each cooperator will be limited to a \$15,000 lifetime cap for three-year conservation tillage for grain and cotton.
9. No burning of crop residue will be permitted for any of the conservation tillage incentives.
10. When determining the acreage for which payments can be made for this incentive, only the acreage actually planted shall be considered. The area occupied by farm roads, best management practices, ditches, structures, etc. shall not be included in planted acreage.
11. On occasion it may be unavoidable for the cooperator to need to access the field when the traffic will result in ruts in the field (e.g., harvest operations). With documented

approval from field staff, the cooperator can spot disk/level ruts to smooth out the surface. The field staff will work with the cooperator to stay in compliance with his/her conservation tillage contract. If field staff determines adequate cover can be established prior to next crop being planted, a cover crop should be planted immediately. The field staff can provide a recommendation on what might be best to plant as a quick cover. Cooperators must contact their district office for assistance.

- a. Field staff needs to determine the level of need for isolated disking. If smoothing the ruts will allow for the cooperator to stay in compliance, no contract extension will be required.
- b. If extensive disking and leveling occurs, contract must be extended by one year or cooperator must refund entire amount of incentive payment.

Specifications

NC NRCS Technical Guide, Section IV, Specification # 328 (Conservation Crop Rotation), #329A (Residue and Tillage Management, No-Till and Strip Till), and #340 (Cover Crop).

(Policy #11 added March 2010)

Three-Year Conservation Tillage for Peanuts, Sweet Corn, Tobacco, and Vegetables

Definition/Purpose

A Three-Year Conservation Tillage Practice means any tillage and planting system in which at least sixty percent (60%) of the at-plant soil surface is covered by plant residue to improve water quality. Benefits may include reduction of soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. (DIP)

Policies

1. Payments for the Three-Year Conservation Tillage System shall be one-time after the planting of the specialty crop such as peanuts, sweet corn, tobacco, or vegetables. The specialty crop, for which the incentive is paid, must be planted at least once during the three-year contract. The incentive does not require additional plantings of that crop during the contract.
2. Cooperators who have received state or federal cost share for annual conservation tillage prior to September 20, 2000 remain eligible for the Three-Year Conservation Tillage incentive.
3. The cooperator must commit to do conservation tillage (60% crop residue cover at planting) on the same field or group of fields for three consecutive years. No payment for this incentive shall be made until required 60% at plant residue for the specialty crop is certified by a field office representative.
4. A cover crop should be sown at harvest or should be drilled within two weeks after harvest for peanuts and vegetables and after three weeks for tobacco. Plastic is not considered eligible for ground cover in this incentive program.
5. Incentives will be paid after planting the specialty crop according to crop. Please refer to the average cost list.
6. Cooperators who receive the incentive for peanuts, tobacco, and vegetables may be eligible to receive cost share for the same practice for additional acreage in subsequent years.
7. BMP soil, nitrogen, and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
8. Minimum life of the BMP is three (3) years.
9. Each cooperator will be limited to a \$15,000 lifetime cap for peanuts, sweet corn, tobacco, and vegetables.
10. No burning of crop residue will be permitted for any of the conservation tillage incentives.
11. When determining the acreage for which payments can be made for this incentive, only the acreage actually planted shall be considered. The area occupied by farm roads, best management practices, ditches, structures, etc. shall not be included in planted acreage.
12. On occasion it may be unavoidable for the cooperator to need to access the field when the traffic will result in ruts in the field (e.g., harvest operations). With documented approval from field staff, the cooperator can spot disk/level ruts to smooth out the

surface. The field staff will work with the cooperator to stay in compliance with his/her conservation tillage contract. If field staff determines adequate cover can be established prior to next crop being planted, a cover crop should be planted immediately. The field staff can provide a recommendation on what might be best to plant as a quick cover. Cooperators must contact their district office for assistance.

13. Field staff needs to determine the level of need for isolated disking. If smoothing the ruts will allow for the cooperator to stay in compliance, no contract extension will be required.
14. If extensive disking and leveling occurs, contract must be extended by one year or cooperator must refund entire amount of incentive payment.

Specifications

NC NRCS Technical Guide, Section IV, Specification # 328 (Conservation Crop Rotation), #329A (Residue and Tillage Management, No-Till and Strip Till), #340 (Cover Crop).

(Policy #12 added March 2010)

Critical Area Planting

Definition/Purpose

A Critical Area Planting means an area of highly erodible land that cannot be stabilized by ordinary conservation treatment on which permanent perennial vegetative cover is established and protected to improve water quality. Benefits may include reduced soil erosion and sedimentation. (DIP)

Policies

1. Critical Area Treatment for Pasture:
 - a. All critical area plantings in pasture must be temporarily fenced to exclude livestock for at least two (2) years (no cost share on temporary fence).
 - b. Any contiguous area greater than one-half (1/2) acre must be permanently fenced to exclude livestock for ten (10) years.
 - c. Any area with slopes greater than 30 percent must be permanently fenced to exclude livestock for ten (10) years and must be planted to trees or permanent wildlife cover.
 - d. Cost Share Program funding may be used for permanent fence.
 - e. If significantly less fencing than planned in the CPO is cancelled, expires or is not installed, a statement signed by the technician must be submitted to the Division explaining why the fencing was not installed, why significantly less fencing was installed, or indicating that fencing was installed at the cooperator's expense. The statement should indicate that a site visit was performed, along with the date of the site visit to establish the status of the required fencing. Failure to install required fencing constitutes non-compliance and procedure relative to non-compliance must be followed.
2. All NRCS standards and NC Agriculture Cost Share Program policies relative to vegetation must be followed. (See Section V for guidance.)
3. BMP soil and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
4. Minimum life of BMP is ten (10) years.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #342 (Critical Area Planting) and #382 (Fence).

Cropland Conversion (Grass, Trees and Wildlife Plantings)

Definition/Purpose

A Cropland Conversion Practice means to establish and maintain a conservation cover of grass, trees, or wildlife plantings on fields previously used for crop production to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. (DIP)

Policies

1. Cropland Conversion can only be used on land that has a cropping history two of the last five years. This practice must not be used on idle farmland that has grown up in native vegetation and that does not exhibit a water quality concern.
2. If a cooperator is going to graze livestock on cost shared cropland conversion fields, then he/she must provide at his or her own cost livestock exclusion, watering facilities, stream crossing, etc., to protect the water quality. The cooperator must not allow cost shared fields to be overgrazed.
3. Cost Share Program funds can be used to convert cropland not eroding greater than "T" to grass and trees resulting in a reduction of nutrient loading to a nearby water source, due to reducing soil loss or reducing fertilizer application.
4. BMP soil, nitrogen, and phosphorus impacts are required on the contract. Include the planted acreage and drainage area as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
5. Minimum life of BMP is ten (10) years.
6. All NRCS standards and NC Agriculture Cost Share Program policies relative to vegetation are to be followed. (See Section V for guidance.)
7. Trees, permanent wildlife food and cover or other vegetation may be used instead of grass for cropland conversion, critical area treatment, filter strips, etc. as long as site specifications are met.
8. For cropland conversion to trees, except for the conditions below, average costs for tree planting will be used. The average cost will be based on the lowest cost tree species that is suitable for the site. (e.g., if the site is suitable for establishing loblolly pines but the grower wishes to establish hardwoods, the cost share rate will be based on loblolly).
 - a. To receive the higher rate a tree planting statement signed by the local representative from the Division of Forest Resources must be submitted. (Please see addendum to NC-ACSP-2 Tree Planting Statement located in Section 6 of the N.C. Agriculture Cost Share Manual).
 - b. CREP enrollments for CP3 Tree Planting, CP3A Hardwood Tree Planting and CP31 Bottomland Timber Establishment specifies planting species other than Loblolly Pine. Therefore CREP contracts do not require the Tree Planting

Statement (NC-ACSP-2) to receive the higher cost share rate for the planned species.

9. For cropland conversion to trees, in order to establish good tree growth and increase survival rates, cost share assistance is available for chemical releases or other recommended competition control measures before and after planting. For loblolly pines, cost share will be limited to one pre-treatment (site preparation) and one post-treatment. For hardwoods and longleaf pine, cost share will be limited to one pre-treatment (site preparation) and two post-treatments. Cost share may be available for an additional post-treatment within the first 3 years, upon recommendation and a site evaluation from the Division of Forest Resources or a registered forester. The recommendation should accompany the Supplement contract for the additional post-treatment control measure.
10. All contracts involving cropland conversion to trees that include pre- or post- plant site preparation or competition control treatments must include a statement from either the county forest ranger or a registered forester that the specified treatments are necessary. This statement cannot be substituted for the forest management plan required for CREP contracts. A forest management plan recommending the specified treatments can be submitted in lieu of the above statement.
11. Cropland conversion shall not be used in conjunction with a CREP CP22 Riparian Buffer when the cropland conversion eliminates the pollutant source. Agricultural pollutant sources can include un-buffered crop, hay, pasture, or other non-forest area that could contribute to sediment, nutrients, or chemicals to receiving waters.
12. When determining the acreage for which payments can be made for this practice, only the acreage actually planted shall be considered. The area occupied by farm roads, best management practices, ditches, structures, etc. shall not be included in planted acreage.

Specifications:

NRCS Technical Guide, Section IV, Specification #327 (Conservation Cover),
Specification #512 (Pasture & Hayland Planting).

(Modified November 2008, August 2010)

Diversion

Definition/Purpose

A Diversion means a channel constructed across a slope with a supporting ridge on the lower side to control drainage by diverting excess water from an area to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. (DIP)

Polices

1. Diversion may also be used as a component to reduce and/or collect runoff in other BMP systems, such as waste management systems, critical area, etc.
2. Land smoothing for diversions is intended to be used where existing terraces, diversions or other minor landscape features must be removed prior to initiating a diversion.
3. BMP soil, and phosphorus impacts are required on the contract. Include the planted acreage and drainage area as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
4. Minimum life of BMP is ten (10) years.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #362 (Diversion), #558 (Roof Runoff Management) and #348 (Dam Diversion).

Land Smoothing

Definition/Purpose

Reshaping the surface of agricultural land to planned grades for the purpose of improving water quality.

Improve Water Quality by:

1. Reducing nutrient loss
2. Reducing concentrated flow of water from an agriculture field
3. Improving infiltration

Policies

1. Land must be agricultural land that is being used for crop production. Land must be suitable for practice intentions.
2. Land must be graded to the extent needed to eliminate concentrated flow and achieve sheet flow for non-bedded crops.
3. Land Smoothing must be accompanied by one or more of the following best management practices (contract must specify which accompanying practices apply):
 - a. Conservation Tillage or Long-Term No-till on all fields where Land Smoothing is applied. Burning of crop residue is not permitted, unless NC Cooperative Extension or NCDA&CS Regional Agronomist certifies that burning is recommended to control a pest infestation.
 - b. Water Control Structures that intercept all drainage acres from fields where Land Smoothing is applied.
 - c. Riparian Forest Buffer or Filter Strip that intercepts all drainage acres from fields where Land Smoothing is applied.
4. Refer to the average cost list for per acre cost for light and heavy smoothing. Accompanying BMP at established rate or average cost. NOTE-3 year maximum annual payment for Conservation Tillage for Small Grain.
5. A five year maintenance period with accompanying BMP at established maintenance period. NOTE – If accompanying BMP is Conservation Tillage the practice must be maintained for five years.
6. If the practice is completed outside the recommended planting season of a field crop, or if a field crop is not to be planted, a seasonal cover crop is to be planted to prevent erosion.
7. BMP report the number of planted acreage and drainage area that is affected by this BMP.

8. A stable outlet is required for all hoe-drains for the life of the practice.

Specifications

NRCS Technical Guide Specification #466 (Land Smoothing)

(Revised November 2008)

Long Term No-Till

Definition/Purpose

A Long-Term No-Till Practice means planting all crops for five consecutive years with at least eighty percent (80%) of the at-plant soil surface covered by plant residue from preceding crops to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. (DIP)

Policies

1. Long term no-till may be applied on any cropland where adequate ground cover is maintained. Soil fertility levels should be high before establishing a long term no-till system. This applies to crop rotations that include fallow periods as well as annual planting. When fallow periods are included, no surface soil disturbance is allowed.
2. A heavy residue must be maintained throughout the crop rotation, with 80% residue required at planting for all crops. This requirement may prohibit practices such as haying and grazing. If required, cover crops must be established at plant populations that will provide adequate residue for no-till planting (see standard for Cover Crop 340). A minimum of 80% ground cover is required at planting. Soil disturbance during the harvest of crops must be held to a minimum.
3. Payments for Long Term No-Till systems shall be limited to \$150 per acre. No payment for this incentive shall be made until required 80% residue is certified by a field office representative. Any cooperator who receives state or federal funds for annual or 3-year conservation tillage incentives after September 20, 2000 may remain eligible to receive incentive payments for long-term no-till. The incentive payment will be reduced to \$90 per acre on land that has been in the 3-year conservation tillage practice and the previous incentive is counted toward the lifetime cap for long-term no-till (see #11 below).
4. Cooperators who have received state or federal cost share for annual conservation tillage prior to September 20, 2000 remain eligible for this incentive.
5. To be eligible for the 3-year Conservation Tillage (Grain and Cotton) or the Long –Term No-Till incentive, the cooperator must certify that they are not already practicing long-term no-till and maintaining the required percent cover on any land that they farm. Cooperators may receive cost share payments for long-term no-till for additional land for subsequent years, as long as they have not adopted long-term no-till. Adopting long-term no-till requires achieving 80% at-plant residue for five years.
6. Fields should not have severe infestations of weeds that are difficult to control.
7. The earliest allowable herbicide burn down for legumes will be early bloom. The earliest allowable herbicide burn down for grasses will be early boot.
8. All cover crops must be allowed to reach a reasonable level of maturity before herbicide burn down, prior to planting. Suggested planting rates and planting dates can be found in the NRCS Technical Guide, Standard 340, Cover Crop.

9. Integrated pest management will be encouraged.
10. The five-year period for long-term no-till begins with the first crop at planting time and ends with the last crop at harvest.
11. Each cooperator will be limited to a \$25,000.00 combined lifetime cap for long-term no-till and 3-year conservation tillage. If the cooperator has previously received incentive payments for 3-year conservation tillage for grain and cotton, then the amount of the incentive the cooperator may receive for long-term no-till is reduced by the amount of the incentive previously received.
12. No burning of residue is allowed.
13. BMP soil, nitrogen, and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
14. When determining the acreage for which payments can be made for this practice, only the acreage actually planted shall be considered. The area occupied by farm roads, best management practices, ditches, structures, etc. shall not be included in planted acreage.
15. Minimum life of BMP is five (5) years.
16. On occasion it may be unavoidable for the cooperator to need to access the field when the traffic will result in ruts in the field (e.g., harvest operations). With documented approval from field staff, the cooperator can spot disk/level ruts to smooth out the surface. The field staff will work with the cooperator to stay in compliance with his/her conservation tillage contract. If field staff determines adequate cover can be established prior to next crop being planted, a cover crop should be planted immediately. The field staff can provide a recommendation on what might be best to plant as a quick cover. Cooperators must contact their district office for assistance.
 - a. Field staff needs to determine the level of need for isolated disking. If smoothing the ruts will allow for the cooperator to stay in compliance, no contract extension will be required.
 - b. If extensive disking and leveling occurs, contract must be extended by one year or cooperator must refund entire amount of incentive payment.

Specifications

NC NRCS Technical Guide, Section IV, Specification # 328 (Conservation Crop Rotation), #329A (Residue and Tillage Management, No-Till and Strip Till), #340 (Cover Crop), #778 (Long Term No-Till)

(Policy #16 added March 2010)

Pasture Land Conversion

Definition/Purpose

A Pastureland Conversion Practice means establishing trees or perennial wildlife plantings on excessively eroding land with a visible sediment delivery problem to the waters of the state being used for pasture that is too steep to mow or maintain with conventional equipment to improve water quality. Benefits may include reduced soil erosion and sedimentation. (DIP)

Policies

1. Adequate fencing is required. If new, permanent fence is necessary it may be cost shared (see Livestock Exclusion).
2. All tree species are to be planted for long term timber management. Cost share for planting Christmas trees or ornamentals is not allowed.
3. Cost share for competing vegetation control is limited to mowing or herbicide application.
4. BMP soil, nitrogen, and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
5. All contracts that include pre- or post- plant site preparation or competition control treatments must include a statement from either the county forest ranger or a registered forester that the specified treatments are necessary. This statement cannot be substituted for the forest management plan required for CREP contracts. A forest management plan recommending the specified treatments can be submitted in lieu of the above statement.
6. When determining the acreage for which payments can be made for this practice, only the acreage actually planted shall be considered. The area occupied by farm roads, best management practices, ditches, structures, etc. shall not be included in planted acreage.
7. Minimum life of BMP is ten (10) years.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #342 (Critical Area), #472 (Access Control) and #382 (Fence).

Sod-Based Rotation

Definition/Purpose

A Sod-Based Rotation Practice means an adapted sequence of crops, grasses and legumes, or a mixture thereof, established and maintained for a definite number of years as part of a conservation cropping system. Sod-based rotation is designed to provide adequate organic residue for maintenance or improvement of soil tilth to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. (DIP)

Policies

1. A one-time incentive payment per field will be made for establishment.
2. BMP soil, nitrogen, and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
3. Minimum life of BMP is 3, 4 or 5 years, depending on the rotation. Average cost is based on the number of months fields are in sod:
 - a. 3 year sod-based rotation with fields in sod 17 months;
 - b. 4 year sod-based rotation with fields in sod 29 months; and
 - c. 5 year sod-based rotation with fields in sod 41 months.
4. In the event the established sod is destroyed with 6 months or more remaining in the required maintenance period, and the destruction is due to factors beyond the cooperator's control, the cooperator is eligible for only one repair contract during the life of the maintenance period for the practice. So as to not interfere with the planned crop rotation, the repair contract shall not require the maintenance period to be renewed. If the cooperator elects not to repair the sod, then he/she must repay a pro-rated amount of the incentive received. (Repair contract payment is based on 75% of actual costs, in accordance with Repair Contracts policy in Section VI of the NCACSP manual.)

Any cooperator who receives state or federal funds for the 3 year sod-based rotation incentives after September 20, 2000 may remain eligible to receive incentive payments for 4 or 5 year sod-based rotation. The incentive payment for the 4 or 5 year sod-based rotation will be reduced by the amount paid for the 3 year practice.

5. When determining the acreage for which payments can be made for this incentive, only the acreage actually planted shall be considered. The area occupied by farm roads, best management practices, ditches, structures, etc. shall not be included in planted acreage.
6. Each cooperator will be limited to a \$25,000 lifetime cap for sod-based rotation.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #328 (Conservation Crop Rotation) and #512 (Pasture and Hayland Planting), # 528A (Prescribed Grazing).

Stripcropping

Definition/Purpose

A Stripcropping practice means to grow crops and sod in a systematic arrangement of alternating strips or bands across the slope to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. The crops are arranged so that a strip of grass or close-growing crop is alternated with a strip of clean-tilled crop, fallow, or no-till crop, or a strip of grass is alternated with a close-growing crop. (DIP)

Policies

1. Land smoothing for stripcropping is intended to be used only where existing terraces, diversions or other minor landscape features must be removed prior to initiating a stripcropping system.
2. BMP soil and phosphorus impacts are required on the contract. Include the planted acreage and drainage area as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
3. Minimum life of BMP is five (5) years.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #585 (Stripcropping, Field), #585 (Stripcropping, Contour), #328 (Conservation Crop Rotation), and #511 (Forage Harvest Management)

Terraces

Definition/Purpose

A Terrace means an earth embankment, a channel, or a combination ridge and channel constructed across the slope to improve water quality. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. (DIP)

Policies

1. BMP soil and phosphorus impacts are required on the contract. Include the planted acreage and drainage area as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
2. Minimum life of BMP is ten (10) years.
3. Land smoothing for terraces is intended to be used only where existing terraces, diversions or other minor landscape features must be removed prior to initiating a terrace system.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #600 (Terrace).

Wetlands Restoration System

Definition/Purpose

A Wetlands Restoration System means a system of practices designed to restore the natural hydrology of an area that had been drained and cropped.

Policies

1. Wetlands Restoration System components must adhere to existing policies and standards.
2. Elements and items already a part of the NCACSP Average Cost Guide will be paid at 75% of average cost; includes grading, vegetation, pipe drops and surface inlets and animal guards. Other approved BMPs such as cropland conversion to grass, trees or wildlife plantings may be incorporated into the Wetlands Restoration System. For components not found in the Average Cost Guide cost will be based on 75% of actual cost with area office approval required.
3. BMP soil, nitrogen, and phosphorus impacts are required on the contract. Include the planted acreage and drainage area as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
4. Minimum life of BMP is ten (10) years.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #657 (Wetland Restoration)

Conservation Cover

Definition/Purpose

A Conservation Cover practice means to establish and maintain a conservation cover of grass, legumes, or other approved plantings on fields previously with no groundcover established, to reduce soil erosion and improve water quality. Other benefits may include reduced offsite sedimentation and pollution from dissolved and sediment-attached substances. Eligible land includes that planted to Christmas Trees, orchards, ornamentals, vineyards and other cropland needing protective cover. (DIP)

Policies

1. For Christmas tree plantation seeding, while 100% of the land will be sown in conservation cover, the participant will be paid at 2/3 rate assuming 1/3 of cover will be managed Christmas tree row.
2. For all other crops, the participant will be paid at 100% of the eligible acreage seeded and maintained for the contract period.
3. All NRCS standards and NC Agriculture Cost Share Program policies relative to vegetation are to be followed.
4. This practice must not be used to convert idle farmland that has grown up in native vegetation and that does not exhibit a water quality concern, nor to convert cropland.
5. BMP soil and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
6. The minimum life of the BMP is six (6) years.
7. An operator will not be considered in violation due to vegetative cover loss underneath the mature trees.
8. Leaf litter from under harvested Christmas trees is considered an adequate groundcover up to 6 months after harvest season.
9. Covered destroyed during harvesting of ornamentals or any other crop must be re-established at the producer's expense within 30 days after harvest. If the time of vegetative re-establishment is outside the recommended planting season for the preferred cover, a seasonal cover as listed in the specifications will be used in the interim.
10. When determining the acreage for which payments can be made for this incentive, only the acreage actually planted shall be considered. The area occupied by farm roads, best management practices, ditches, structures, etc. shall not be included in planted acreage.
11. An operator may only receive cost share for this practice once on the same acreage.

Specifications

Plant species recommended for the respective region must be used for the vegetative cover. The seeding rate and nutrient requirements as listed in the FOTG, Section IV under Pasture and Hay Planting (Code 512), or as recommended by N.C. State University will be used.

Nutrient Scavenger Crop

Definition/Purpose

A Nutrient Scavenger Crop is a crop of small grain grown primarily as a seasonal nutrient scavenger. The purpose is to scavenge and cycle plant nutrients. The nutrient scavenger crop also adds organic matter to the soil, improves infiltration, aeration and tilth, improves soil quality, reduces soil crusting, provides residue for conservation tillage, and sequesters carbon. Benefits may include reduction of soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. (DIP)

Policies

1. For a nutrient scavenger crop to improve water quality, it must become quickly established, grow vigorously, and accumulate significant biomass in the early fall before nutrients are leached below the root zone. Only the following crops are eligible for this incentive. They **must** be planted by the planting deadline and sown at the seeding rates given below for each region.

Nutrient Scavenger Crop	Minimum Planting Rate	Coastal Plain Plant Deadline/ <i>Earliest Kill Date*</i>	Piedmont Plant Deadline/ <i>Earliest Kill Date*</i>	Mountains Plant Deadline/ <i>Earliest Kill Date*</i>
Barley	2-3 bu	Oct. 15/ <i>April 1</i>	Oct. 10/ <i>April 10</i>	Oct. 10/ <i>April 10</i>
Oats	3 bu	Oct. 15/ <i>April 1</i>	Oct. 10/ <i>April 10</i>	Nov. 1/ <i>April 10</i>
Rye	2 bu	Nov. 30/ <i>April 1</i>	Nov. 30/ <i>April 10</i>	Nov. 1/ <i>April 10</i>
Triticale	90 lb	Nov. 30/ <i>April 1</i>	Nov. 30/ <i>April 10</i>	Nov. 1/ <i>April 10</i>
Wheat	2-3 bu	Nov. 30/ <i>April 1</i>	Nov. 30/ <i>April 10</i>	Nov. 1/ <i>April 10</i>

*Note: Planting deadline in standard print and earliest kill date shown in *italics*.

2. Establishment of nutrient scavenger crops must be planned well in advance to achieve a good stand. Seedbed preparation may be done by any suitable method. Seedbed preparation may be eliminated when nutrient scavenger crops are seeded by broadcasting into a standing crop, into residues of a previous crop by conservation tillage methods or when the harvesting procedure or residue shredding will cover seeds. No-till methods are preferred.
3. Drill or broadcast methods of seeding may be used. Broadcast methods of seeding should be completed prior to harvest for cotton and soybeans. For cotton or soybeans, it is highly recommended that seed be broadcast during the defoliation pass or before leaf drop. Subsequent leaf drop and harvest operations will cover seeds and help ensure good germination.
4. Nutrient scavenger crops must be allowed to grow throughout the winter and early spring to achieve the purpose of the incentive. Greatest effectiveness is achieved if left to grow

until the early boot stage. The planting and kill dates (see table under policy #1) are given in order to achieve optimum physiological maturity. Earliest kill date is April 1 in the Coastal Plain and April 10 for the Piedmont and Mountains.

5. No animal waste or fertilizer will be applied to these nutrient scavenger crops. The fields must not be grazed nor the crop removed. No burning of crop residue will be permitted.
6. No payment for this incentive shall be made until the nutrient scavenger crop reaches the kill date. Field office representatives shall verify each spring that cover has reached physiological maturity or has been left to grow until the required kill date. Field offices unwilling to assist operators in achieving success and monitor nutrient scavenger crop establishment and stand quality should not offer this incentive to cooperators in their district.
7. Disking or plowing destroys the majority of the soil quality gains associated with nutrient scavenger crop management. Therefore, while disking or plowing may be allowed by this practice, conservation tillage is encouraged.
8. Certified seeds or bin seed may be used for each year to receive the annual incentive payment. **Cooperators using bin seed must be careful to adhere to the restrictions imposed by the federal Plant Variety Protection Act, the NC seed rules and statutes, and laws governing the use of seed from patented plants.** Seed allowed for cost share includes rye, triticale, oats, barley, or wheat. Rye or triticale is preferred for higher rates of nutrient scavenging and biomass accumulation. Incentive rates are dependent on the species planted can be found on the average cost list.
9. Practice has a \$25,000 lifetime cap per cooperator. Each field is eligible for up to three annual contracts per cooperator. Annual contracts do not need to be consecutive years. The life of the BMP is one year.
10. Growers currently receiving state or federal cost share for any conservation tillage practice are not eligible for this practice on the same field or group of fields. (All conservation tillage incentive rates include cost of nutrient scavenger crops.)
11. Growers who have previously received state or federal cost share for any conservation tillage practice are eligible for this BMP.
12. When determining the acreage for which payments can be made for this practice, only the acreage actually planted shall be considered. The area occupied by farm roads, best management practices, ditches, structures, etc. shall not be included in planted acreage.
13. BMP soil, nitrogen, and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
14. On occasion it may be unavoidable for the cooperator to need to access the field when the traffic will result in ruts in the field (e.g., harvest operations). With documented approval from field staff, the cooperator can spot disk/level ruts to smooth out the surface. The field staff will work with the cooperator to stay in compliance with his/her conservation tillage contract. If field staff determines adequate cover can be established

prior to next crop being planted, a cover crop should be planted immediately. The field staff can provide a recommendation on what might be best to plant as a quick cover. Cooperators must contact their district office for assistance.

- a. Field staff needs to determine the level of need for isolated disking. If smoothing the ruts will allow for the cooperator to stay in compliance, no contract extension will be required.
- b. If extensive disking and leveling occurs, contract must be extended by one year or cooperator must refund entire amount of incentive payment.

Recommendation

Growers are encouraged to establish this BMP using conservation tillage or long term no-till.

Specifications

NC NRCS Technical Guide, Section IV, Specification #340 (Cover Crop), # 328 (Conservation Cropping Rotation), #329A (Residue and Tillage Management, No-Till and Strip Till), and #778 (Long Term No Till).

(Revised July 2009; Policy #14 added March 2010)

Cover Crop

Definition/Purpose

A crop of grasses, legumes, or small grain grown primarily for seasonal protection, erosion control and soil improvement. It usually is grown for one year or less. The major purpose is water and wind erosion control, to cycle plant nutrients, add organic matter to the soil, improve infiltration, aeration and tilth, improve soil quality, reduce soil crusting, and sequester carbon. Benefits may include reduction of soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. (DIP)

Policies

1. For a cover crop to improve water quality, it must become quickly established, grow vigorously, and accumulate significant biomass. The following crops are eligible for this incentive. They must be planted by the planting deadline and sown at the seeding rates given below for each region (see Table 1.).

Table 1. Required Planting Rates and Deadline Planting Dates.

Cover Crop Species	Planting Rates (Lower amount: minimum rate)	Required Minimum Planting Dates by Physiographic Region	Deadline Planting Dates by Physiographic Region
		Coastal Plain Piedmont Mountains	1.Coastal Plain 2.Piedmont 3.Mountains
Annual Lespedeza ^{s 1}	20-40 lbs.	1. February 1 2. February 1 3. March 15	1. March 15 2. April 1 3. April 15
Austrian Winter Pea ⁴	30-40 lbs.	1. August 25 2. August 25 3. N/A	1. October 25 2. October 15 3. N/A
Barley	2-3 bu.	1. September 1 3. August 20 4. August 1	1. October 15 2. October 10 3. October 10
Crimson Clover ⁴	15-30 lbs.	1. Sept. 15 2. Sept. 5 3. Sept. 1	1. November 15 2. November 5 3. November 1
Cow Pea (Southern Pea)	30-90 lbs drilled or 70-120 lbs broadcast		Late summer
Hairy Vetch ⁵	30-40 lbs.	1. August 25 2. October 15 3 July 15	1. Oct. 25 2. October 15 3. August 30

Cover Crop Species	<u>Planting Rates</u> (Lower amount: minimum rate)	Required Minimum Planting Dates by Physiographic Region	Deadline Planting Dates by Physiographic Region
Oats	3 bu.	1. September 1 2. August 20 3. August 1	1. October 15 2. October 10 3. November 1
Pearl Millet ³	6-10 lbs. in row; 20-25 lbs. drilled or broadcast	1. May 5 2. April 25 3. April 15	1. July 5 2. June 30 3. June 30
Rye	2 bu.	1. Sept. 15 2. Sept. 5 3. August 15	1. November 1 2. November 1 3. November 1
Ryegrass ⁵	30-40 lbs.	1. Sept. 15 2. Sept. 15 3. Sept. 1	1. November 15 2. November 1 3. November 1
Sorghum-Sudan Hybrids ^{1, 2}	15-20 lbs in row 35-40 lbs drilled or broadcast	1. May 5 2. April 15 3. April 15	1. July 5 2. June 30 3. June 20
Sweet Clover, Red Clover	6-10 lb/ac drilled 10-20 lb/ac broadcast	Dec to Jan 15 or after wheat	Dec to Jan 15 or after wheat
Sun Hemp	40-50 lb/ac	9 weeks before average fall freeze date	9 weeks before average fall freeze date
Triticale	1 ½ bu.	1. Sept. 15 2. Sept. 1 3. Aug. 20	1. Nov. 30 2. Nov. 20 3. Oct. 20
Wheat	2-3 bu.	1. Oct. 25 2. October 10 3. October 1	1. November 15 2. November 1 3. November 1

¹ Tolerates fairly acid soil but performs best when a soil pH of 6.0 to 6.5 is maintained.

² Potential danger from prussic acid poison if plants are frosted, stunted or young growth is grazed. Do not allow horses to graze the green plants; apparently the hay may be used if properly cured.

³ No problem with prussic acid.

⁴Inoculate seed. ⁵May at times become a pest since it volunteers readily. Herbicides can now be used effectively to reduce this problem. ⁶Mid range of production. Amounts will vary \pm 50% depending on numerous factors. Top growth only

2. Establishment of cover crops must be planned well in advance to achieve a good stand. Seedbed preparation may be done by any suitable implement or method. Seedbed preparation may be eliminated when cover crops are seeded by broadcasting into a standing crop, into residues of a previous crop by conservation tillage methods or when the harvesting procedure or residue shredding will cover seeds. No-till methods are preferred.
3. Drill or broadcast methods of seeding may be used. Broadcast methods of seeding should be completed prior to harvest for cotton, soybeans and peanuts. For cotton or soybeans, it is highly recommended that cover be broadcast during the defoliation pass or before leaf drop. Subsequent leaf drop and harvest operations will cover seeds and help ensure good germination.
4. No payment for this cost-shared practice shall be made until the cover crop is established.
5. Field offices unwilling to assist operators in achieving success and monitor cover crop establishment and stand quality should not offer this incentive to cooperators in their district.
6. Allow the cover crop to grow until 30 days before planting the succeeding crop. Terminate cover crop as late as possible to maximize plant biomass production considering the time needed to prepare the field for the next crop. Disking or plowing destroys the majority of the soil quality gains associated with cover crop management. Therefore, while disking or plowing may be allowed by this practice, conservation tillage is encouraged. Small grains should grow until at least early boot stage. Legumes should grow until at least early flower.
7. Either certified seed or bin seed may be used for this cost share practice in order to receive payment. The maximum payment for planting shall be \$20.00 per acre. **Cooperators using bin seed must be careful to adhere to the restrictions imposed by the federal Plant Variety Protection Act, the NC seed rules and statutes, and laws governing the use of seed from patented plants.**
8. Practice has a \$15,000 lifetime limit per applicant and is limited to 3 annual contracts per applicant.
9. BMP soil and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
10. Cover crop is an annual practice. Request for payment must be annually.
11. Animal waste or fertilizer may be applied to these cover crops when needed to improve the vigor of the crop. The fields must not be grazed or the crop removed. No burning of crop residue will be permitted. This practice precludes the planting of small grain for harvest.

12. An applicant may not simultaneously receive the cover crop incentive and either the 3-year conservation tillage incentive, the long-term no-till incentive, or the nutrient scavenger cover crop incentive.
13. On occasion it may be unavoidable for the cooperator to need to access the field when the traffic will result in ruts in the field (e.g., harvest operations). With documented approval from field staff, the cooperator can spot disk/level ruts to smooth out the surface. The field staff will work with the cooperator to stay in compliance with his/her conservation tillage contract. If field staff determines adequate cover can be established prior to next crop being planted, a cover crop should be planted immediately. The field staff can provide a recommendation on what might be best to plant as a quick cover. Cooperators must contact their district office for assistance.
 - a. Field staff needs to determine the level of need for isolated disking. If smoothing the ruts will allow for the cooperator to stay in compliance, no contract extension will be required.
 - b. If extensive disking and leveling occurs, contract must be extended by one year or cooperator must refund entire amount of incentive payment.

Specifications

NC NRCS Technical Guide, Section IV, Specification #340 (Cover Crop), # 328 (Conservation Cropping Rotation), #329A (Residue and Tillage Management, No-Till and Strip Till), and #778 (Long Term No Till).

(Revised July 2009; Policy #13 added March 2010)

Micro-Irrigation System

Definition/Purpose

A Micro-irrigation System means an environmentally safe system for the conveyance and distribution of water, chemicals and fertilizer to agricultural fields for crop production. A micro-irrigation system is for frequent application of small quantities of water on or below the soil surface: as drops, tiny streams or miniature spray through emitters or applicators placed along a water delivery line.

This practice may be applied as part of a conservation management system to support one or more of the following purposes.

- To efficiently and uniformly apply irrigation water and maintain soil moisture for plant growth.
- To efficiently and uniformly apply plant nutrients in a manner that protects water quality.
- To prevent contamination of ground and surface water by efficiently and uniformly applying chemicals and fertilizers.
- To establish desired vegetation.

Policies

1. Operation and Maintenance Plan Statement (NC-ACSP-OMP) is required.
2. BMP soil and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
3. Minimum life expectancy is ten (10) years.
4. This practice is intended to be implemented to replace and/or reduce the use of other types of irrigation and fertilization such as the traveling gun, center-pivot and furrow irrigation systems unless agronomic necessity (e.g., frost/freeze protection, soil settling) suggest alternate or temporary methods of irrigation.
5. Backflow devices and flow meters are required.
6. Limit one system per cooperator/farming operation.
7. Cost Share will be based on actual cost with receipts required not exceeding that listed amount in the NCACSP average cost list, including the cost of backflow prevention. Other water quality BMPs needed are in addition to the micro-irrigation cost.
8. This practice must be used in conjunction with other necessary practices (e.g., conservation cover, filter strips) to control soil erosion and improve water quality.

Specifications

N. C. NRCS Technical Guide, Section IV, Specification #441 (Irrigation System, Microirrigation).

Rooftop Runoff Management System

Definition/Purpose

A Rooftop Runoff Management System means a system of collection and stabilization practices (drip line stabilization, guttering, collection boxes, etc.) to prevent rainfall runoff from agricultural rooftops from causing erosion where vegetative practices are insufficient to address erosion concerns and protect water quality. (DIP)

Policies

1. Cost share shall be limited to the cost of installing a gravel drip pad and the minimum water management components necessary to diffuse the runoff or direct water to a stable outlet.
2. Drip pads must be a minimum of 2 feet in width, but they can be up to the width of the roof overhang plus one foot.
3. Cost share can be provided to install gutters and downspouts, in lieu of gravel drip pads, but not to exceed the estimated cost of an appropriately sized gravel drip pad.
4. It may not be necessary to treat all rooftop runoff if runoff from a portion of a rooftop can be managed vegetatively.
5. This practice may be used in conjunction with other practices (e.g., critical area treatment, diversion) as necessary to control erosion from rooftop runoff.
6. The life of the BMP is ten (10) years.
7. BMP soil impacts are required on the contract. Include the treated area as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.

Specifications

North Carolina NRCS Technical Guide, Section IV, Specification #558 (Roof Runoff Structure).

(September 2008)

Prescribed Grazing

Definition/Purpose

Prescribed Grazing involves managing the intensity, frequency, duration, timing, and number of grazing animals on pastureland in accordance with site production limitations, rate of plant growth, physiological needs of forage plants for production and persistence, and nutritional needs of the grazing animals. The goal of this practice is to reduce accelerated soil erosion and compaction, to improve or maintain riparian and watershed function, to maintain surface and/or subsurface water quality and quantity, to improve nutrient distribution, and to improve or maintain desired species composition and vigor of plant communities. Productive pastures maintain wildlife habitat and permeable green space. (DIP)

Policies

1. This practice must be maintained on the same pasture acres for three consecutive years.
2. The cooperator can receive incentive of up to the amount listed on the NCACSP average cost list per year for up to 3 years, not to exceed a lifetime cap of \$15,000 per applicant.
3. The cooperator must consistently manage fertility, stocking rates, and stop/start grazing heights (shown in the Target Grazing Height table); to minimize the potential for cost shared fields to be overgrazed and to ensure that a good stand of pasture vegetation is maintained.

Species	Growth Periods	Target Grazing Height -----inches-----	
		to start	to stop*
Bermudagrass: Common, hybrid & seeded varieties	Apr-Sep	4-6	2-3
	Frosted	3+	2-3
Bluegrass, Kentucky with White Clover	Mar-May	4-6	2-3
	Jun-Aug	6-8	2-4
	Sep-Oct	6-8	2-3
	Nov-Feb	4-6	2-3
Fescue or Orchardgrass with/without Ladino Clover	Feb-Mar	4-6	2-3
	Apr-Jun	6-8	2-3
	Jul-Aug	6-8	3-4
	Sep-Oct	6-8	2-3
	Nov-Jan	4-6	2-3
Red Clover and mixtures with cool-season grasses	Apr-May	6" to bud	3-4
	Jun-Sep	10" to bud	3-4
	Nov-Dec	Frosted	2-3
Switchgrass, Indiangrass, Big Bluestem	Apr-Jun	14-18	5-7
	Jul-Aug	18-22	5-7
	Sep-Oct	16-20	8-12

- * Up to 10% of the prescribed grazing area may fall below the recommended forage grazing stop heights during dormant periods or declared natural disaster to allow external feeding and further regrowth of remaining acreage. This sacrifice grazing area should be identified as part of a plan on the least environmentally sensitive part of the prescribed grazing area. Vegetation shall be re-established as quickly as possible.
- 4. Stocking rate for available land must be balanced such that no more than 30% external feed (non-grazing land) is needed based on NRCS C-Graze software.
- 5. The cooperator must agree to manage the seasonal and periodic movement of grazing animals to ensure effective forage utilization and improve distribution of excreted nutrients (including placement /provision of drinking water sources).
- 6. The cooperator must agree to exclude livestock from surface waters and to implement stream protection system components necessary to protect water quality.
- 7. Existing feeding, handling, and watering areas must be located as far from streams as practical, but no closer than 30 feet from streams, unless it is technically impractical. To the extent practical, feeding areas for external feed should be moved frequently to improve the distribution of excreted nutrients.
- 8. Other sacrifice areas shall be located as far from streams as practical, but no closer than 100 feet from streams, unless it is technically impractical.
- 9. The cooperator must apply nutrients in accordance with a nutrient management plan based on realistic yield expectation and a soil test report within the last two years, taking into consideration the excreted nutrients from livestock.
- 10. Additional cost share funds can be provided in conjunction with this practice to:
 - a. Install necessary temporary or permanent interior fencing to facilitate effective rotation of grazing animals,
 - b. Install fencing to exclude livestock from surface waters
 - c. Provide sufficient drinking water in each paddock of the grazing system
 - d. Install other necessary stream protection components.
- 11. BMP soil and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.

Specifications

North Carolina NRCS Technical Guide, Section IV, Code #528 (Prescribed Grazing)

(September 2008; revised September 2009)

Crop Residue Management

Definition/Purpose

Crop residue management means maintaining cover on sixty (60) percent of the soil surface at planting to protect water quality. Crop residue management also provides seasonal soil protection from wind and rain erosion, adds organic matter to the soil, conserves soil moisture, and improves infiltration, aeration and tilth. Benefits may include reduction in soil erosion, sedimentation and pollution from dissolved sediment-attached substances.

Policies

1. Must maintain 60% ground cover at planting. This may require the previous crop to be no-tilled or followed by a cover crop. Cover crops must be planted after harvest of low residue crops (i.e. peanuts, cotton, etc)
2. Fields that are under active contract for the cover crop incentive, nutrient scavenger crop incentive, 3-year conservation tillage incentive or long-term no-till incentive is not eligible for this incentive.
3. Crop residue must be managed at harvest for maximum land cover.
4. No burning of residue is allowed.
5. Two inspections of fields will be made; one after fields is planted and the second before the soil is disturbed before planting a subsequent crop.
6. Payment will be made after the 2nd inspection.
7. BMP soil, nitrogen, and phosphorus impacts are required on the contract. Include the planted acreage as well. Refer to the Minimum NCACSP Effects Requirements table later in this section for the correct methods of calculation.
8. Practice has a \$15,000 lifetime cap per cooperator. Each field is eligible for up to three annual contracts per cooperator. Annual contracts do not need to be consecutive years. Life of BMP is one (1) year.
9. When determining the acreage for which payments can be made for this practice, only the acreage actually planted shall be considered. The area occupied by farm roads, BMPs, ditches, structures, etc. shall not be included in the acreage managed.
10. On occasion it may be unavoidable for the cooperator to need to access the field when the traffic will result in ruts in the field (e.g., harvest operations). With documented approval from field staff, the cooperator can spot disk/level ruts to smooth out the surface. The field staff will work with the cooperator to stay in compliance with his/her conservation tillage contract. If field staff determines adequate cover can be established prior to next crop being planted, a cover crop should be planted immediately. The field staff can provide a recommendation on what might be best to plant as a quick cover. Cooperators must contact their district office for assistance.

- a. Field staff needs to determine the level of need for isolated disking. If smoothing the ruts will allow for the cooperator to stay in compliance, no contract extension will be required.
- b. If extensive disking and leveling occurs, contract must be extended by one year or cooperator must refund entire amount of incentive payment.

Specifications

NRCS Technical guide Specification #344 (Residue Management, Seasonal) and #340 (Cover Crop)

(Adopted March 2009; Revised September 2009; Policy #10 added March 2010)

Pasture Renovation

Definition/Purpose

A Pasture Renovation Practice means to establish and maintain a conservation cover of grass, where drought has caused damage to pasture vegetation. Benefits may include reduced soil erosion, sedimentation and pollution from dissolved and sediment-attached substances. (DIP)

Policies

1. This practice must not be used to convert idle farmland to pastures, and it does not apply to hayland that is not normally grazed.
2. The cooperators must manage fertility, stocking rates, and stop/start grazing heights (shown in the Target Grazing Height table); to minimize the potential for cost shared fields to be overgrazed and to ensure that a good stand is maintained.
3. Grazing animals shall be excluded from renovated pastures until forage reaches desired start grazing height as shown in the Target Grazing Height table.

Species	Growth Periods	Target Grazing Height -----inches-----	
		to start	to stop
Bermudagrass: Common, hybrid & seeded varieties	Apr-Sep	4-6	2-3
	Frosted	3+	2-3
Bluegrass, Kentucky with White Clover	Mar-May	4-6	2-3
	Jun-Aug	6-8	2-4
	Sep-Oct	6-8	2-3
	Nov-Feb	4-6	2-3
Fescue or Orchardgrass with/without Ladino Clover	Feb-Mar	4-6	2-3
	Apr-Jun	6-8	2-3
	Jul-Aug	6-8	3-4
	Sep-Oct	6-8	2-3
	Nov-Jan	4-6	2-3
Red Clover and mixtures with cool-season grasses	Apr-May	6" to bud	3-4
	Jun-Sep	10" to bud	3-4
	Nov-Dec	Frosted	2-3
Switchgrass, Indiangrass, Big Bluestem	Apr-Jun	14-18	5-7
	Jul-Aug	18-22	5-7
	Sep-Oct	16-20	8-12

4. BMP soil, nitrogen and phosphorus impacts are required on the contract.
5. Minimum life of BMP is ten (10) years.
6. All NC Agriculture Cost Share Program policies relative to vegetation seeding rates and times are to be followed.

7. When determining the acreage for which payments can be made for this practice, only the acreage actually planted shall be considered. The area occupied by farm roads, best management practices, ditches, structures, etc. shall not be included in planted acreage.
8. This practice shall be based on actual costs with a cap which is listed on the NCACSP average cost list.

Specifications

NRCS Technical Guide, Section IV, Specification #512 (Pasture and Hay Planting).